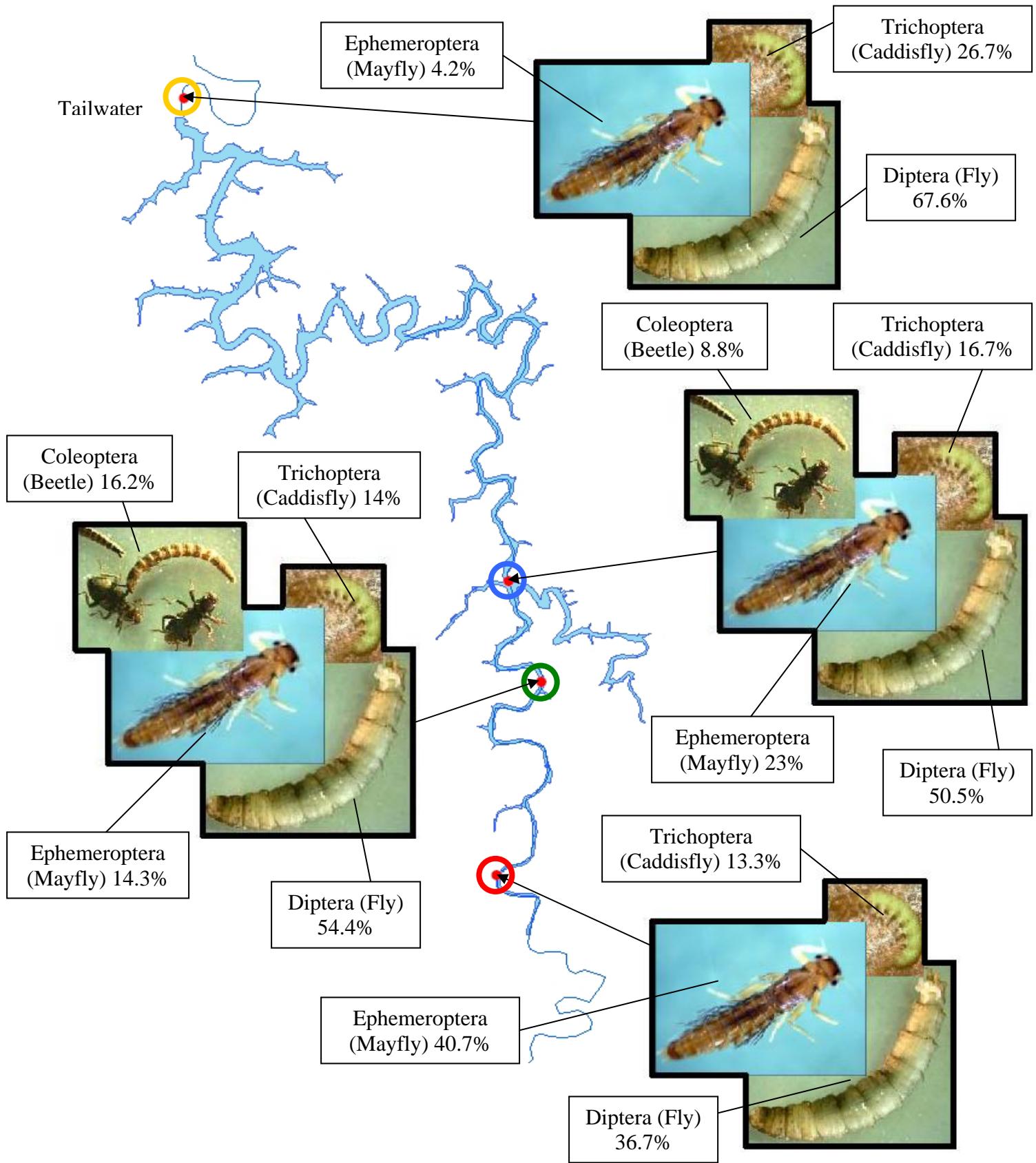


Aquatic Insects' Community Structure
Buckhorn Lake Analysis
September 15 & 16, 2004

Relative abundance of dominant taxa found at the sites shown below.



Community Metrics*	Buckhorn			
	Tailwater	Cutshin Creek	Ellis Creek	Short Creek
Collection Date	9/16/04	9/15/04	9/15/04	9/15/04
Total Number of Taxa	24	24	29	28
% Contribution of Dominant Taxa	87	61	61	48
Modified Hilsenhoff Biotic Index (0, good – 10, bad)	6.17	5.69	5.33	5.60
Shannon-Wiener Index	0.00	2.60	2.61	3.04
Number of Ephemeroptera Taxa	4	6	10	9
% Ephemeroptera Taxa (Abundance)	3	19	13	37
Number of Plecoptera Taxa	0	1	0	1
% Plecoptera Taxa (Abundance)	0	0	0	1
Number of Trichoptera Taxa	4	2	5	3
% Trichoptera Taxa (Abundance)	19	14	13	12
Number of EPT Taxa	8	9	15	13
% EPT Taxa	22	33	26	50
Number of Dipteran Taxa	10	10	7	6
% Dipteran Taxa	49	41	49	33
Number of Chironomid Taxa	6	7	3	4
% Chironomid Taxa	45	40	46	33
Number of Tanytarsini Taxa	1	2	1	2
% Tanytarsini Taxa	39	10	8	9
Number of Orthocladiinae Taxa	4	4	3	3
% Orthocladiinae Taxa	4	30	38	24
% Cricotopus + Chironomus/Total Chiron.	4	35	16	70
Number of Dipteran Taxa – Tanytarsini and other Non-Insect Taxa	13	10	10	6
% Dipteran Taxa - Tanytarsini and other Non-Insect Taxa	38	50	51	33
Ratio of EPT to Chiron. Abundance	0.49	0.81	0.56	1.52
Percent Tolerant Organisms	1	2	1	0
Numbers of Individuals / m ²	984	676	789	446

* Based on 4 replicate surber samples
 Substrate sampled – small stones

- 5 Most Abundant Taxa on Tailwater
- Rheotanytarsus exiguus group sp. (Diptera) 54.2%
 - Cheumatopsyche sp. (Trichoptera) 23.7%
 - Nanocladius (Nanocladius) sp. (Diptera) 3.1%
 - Simulium sp. (Diptera) 3.1%
 - Tricorythodes sp. (Ephemeroptera) 2.3%

- 5 Most Abundant Taxa downstream of Cutshin Cr.
- Cardiocladius obscurus (Diptera) 19.1%
 - Cricotopus/Orthocladius sp. (Diptera) 14.2%
 - Rheotanytarsus exiguus group sp. (Diptera) 11.3%
 - Isonychia sp. (Ephemeroptera) 9.8%
 - Cheumatopsyche sp. (Trichoptera) 9.8%
 - Optioservus sp. (Coleoptera) 7.8%

- 5 Most Abundant Taxa downstream of Ellis Cr.
- Cardiocladius obscurus (Diptera) 34%
 - Cheumatopsyche sp. (Trichoptera) 9.4%
 - Rheotanytarsus exiguus group sp. (Diptera) 8.3%
 - Cricotopus/Orthocladius sp. (Diptera) 6.8%
 - Microcylloepus pusillus (Coleoptera) 6.4%
 - Isonychia sp. (Ephemeroptera) 6.4%

- 4 Most Abundant Taxa downstream of Short Cr.
- Cricotopus/Orthocladius sp. (Diptera) 22%
 - Stenonema sp. (Ephemeroptera) 7.3%
 - Cheumatopsyche sp. (Trichoptera) 7.3%
 - Baetis intercalaris (Ephemeroptera) 6.7%